A DIVISION AMONG THEORISTS IN THEIR ANALYSIS OF PROFITS

SUMMARY

The classical economists regarded minimum profits as an element in cost of production, 115. — Walker's rent theory, 118. — Similar views by other Americans, 119. — By Europeans, 121. — Profits regarded as wages of labor by still others, 123. — Distinction needed between earned efficiency profits and unearned scarcity profits, 127. — Efficiency profits recognized by the law, 128. — Patents, trade secrets, invention, 129. — Judgment and risk-taking, 133. — Surplus or scarcity profits differ from efficiency profits, 134. — Are not an element of cost, 135. — Defects of the labor theory, 136.

AMONG the various theories which attempt to explain the origin of profits, a small number still occupy secure positions in economic thought. The risk concept is familiar to all advanced students of economics; and the surplus theory of profit, as an excess above cost of production, constitutes an almost indispensable part of any thoro discussion of the entrepreneur's income. At the same time, the rent theory of profits, which explains the origin of this income as a mere differential return above a no-profit margin, has done much to emphasize the similarities between all shares in production. Finally, the labor theory by a simple method represents the entrepreneur's residual returns as massed into a single, but complex product, with many peculiarities. Other doctrines, of minor importance, present a variety of views which run the entire gamut of notions from the surplus concept, on the one side, to the labor theory on the other; and it is, therefore, plain that in tracing the irreconcilable division between the devotees of these

last two theories, the description finally given here of a pure efficiency profit,[1] derived from a reduction of costs, does not break entirely with the traditions of economic science.

The classical economists seldom failed to maintain that profits entered into the cost of production. Adam Smith's explanation of the nature and source of such returns was ultimately based, it is true, on the productivity of labor. Nevertheless, profits were regarded as really a payment for the risk taken and the services performed by the entrepreneur in production.[2] David Ricardo, however, did not consider profits to be a deduction from wages, but a surplus above the return of labor, which compensated the employer for the usual risk and trouble encountered in employing capital productively; and as such they were regarded as forming necessary costs of production.[3] "Mr. Malthus appears to think," said Ricardo in reply to that writer, "that it is a part of my doctrine, that the cost and value of a thing should be the same — it is, if he means by cost, 'cost of production' including profits."[4] Fortunately, this statement has set at rest any doubt as to Ricardo's classification of profits; and without this, the interpretation of the younger Mill would be less clear. The latter adopted in particular the point of view of Adam Smith that "The cause of profit is that labour produces more than is required for its support." In this respect Mill is plain: "If the labourers of the country, collectively, produce 20 per cent more than their wages, profits will be 20 per cent, whatever prices may or may not be."[5] But Mill,

[1] For a description of this theory see the American Economic Review for June, 1918.

[2] Smith, Wealth of Nations, Bk. I, chap. vi, pp. 50, 56.

[3] Ricardo, Principles of Political Economy, ch. iv, section 33, p. 68; sections 43, 44, pp. 97, 99, 101.

[4] Ibid., section 6, p. 39, note.

[5] J. S. Mill, Political Economy, Bk. II, chap. xv, section 5.

like Ricardo, appreciated the importance of the entrepreneur's sacrifices and, therefore, represented the risk-taking function as in a large measure the basis of a minimum profit — an adequate compensation for "some additional risk" over that incurred upon idle capital.[1]

By all three writers, profits were treated as essentially a cost element in the necessary or natural price of a commodity. To Smith, a minimum profit was the lowest ordinary profit, which "must always be something more than what is sufficient to compensate the occasional losses to which every employer of stock is exposed."[2] And Mill's "minimum rate of profit," by including interest and insurance against risk, resembles very closely Smith's "lowest ordinary rate of profit." Mill separates gross profits into interest, wages of superintendence, and compensation for risk;[3] but these also constitute a minimum profit which he treats as a part of necessary price: "The cost of production, together with the ordinary profit," says Mill, "may therefore be called the *necessary* price, or value of all things made by labor and capital."[4] But where commodities can be made in indefinite quantities, this ordinary profit, or "this necessary value, the minimum with which the producer will be content, is also, if competition is free and active, the maximum which they can expect." Now, as in the general trend of his discussion, Mill makes cost of production equivalent to "necessary price," it is but logical that minimum profit should be regarded as a constituent part of the cost of production. Here again, Mill was building on the work of Smith[5]

[1] J. S. Mill, Principles of Political Economy, Bk. IV, chap. iv, section 3, p. 441; see also Bk. II, chap. xv, section 2.

[2] Wealth of Nations, Bk. I, chap. ix, pp. 75, 76.

[3] Principles of Political Economy, Bk. II, chap. xv, sections 1, 2.

[4] Ibid., Bk. III, chap. iii, section 1.

[5] Wealth of Nations, chap. vii.

and Ricardo,[1] who had already established the concept of a natural price. And Mill has acknowledged that "Adam Smith and Ricardo have called that value of a thing which is proportioned to its cost of production, its Natural Value (or its Natural Price). They meant by this, the point about which the value oscillates, and to which it always tends to return." [2]

Altho the English writers of this period differed widely in their views of the origin of profit, our interest lies chiefly in the fact that Smith, Ricardo, and J. S. Mill were firm in their belief that minimum profits, at least, entered into natural price as a cost of production. By all three, profits were regarded as a surplus to which the employer was entitled because of the trouble, risk, abstinence, labor of inspection or expense, which he assumed in the process of production.[3] At the time when these men wrote, the right of contract was not so fully developed and there was less restraint upon trade than there is today. In the absence of complex industrial conditions, these economists were able to determine the exact location of the normal competitive plane which forms the natural dividing line between efficiency profits, on the one side, and scarcity surpluses including inchoate rent on the other. At least, to them profits were a part of the cost of production, rent a surplus above it. Of great pertinency is this fact to any present theory of profits.[4] From this simple idea of a normal

[1] Political Economy, chap. iv, pp. 65, 69; chap. vi, p. 97.

[2] Moreover, this normal value was supposed to make its appearance under a state of stable equilibrium; for the chapter is closed in these words: "but the condition of *stable* equilibrium is when things exchange for each other according to their cost of production, or, in the expression we have used, when things are at their Natural Value." Ibid., Bk. III, chap. iii, section 2.

[3] Smith, Wealth of Nations, Bk. I, chap. vi, p. 24; Bk. I, chap. x, pp. 50, 51; Ricardo, Principles of Political Economy (Gonner's ed.), pp. 68, 97, 101; Mill, Political Economy, Bk. II, chap. xv, sections 1, 2; Essays, pp. 107, 108.

[4] See also Cairnes, Some Leading Principles of Political Economy, chap. iii, section 3; Bagehot, Economic Studies, p. 197; Rogers, Political Economy, p. 139.

competitive line, which included profits in costs of production, have run many divergent views; but in assuming the task of unraveling this tangled web of economic theory, we shall always bear in mind the location of this point of normal value.

President Walker was one of the first of the surplus theorists to divert attention from this classical theory of a minimum profit; and it was exactly at the point of normal value, or natural price, that he constructed his first serious change in the established profit theory. Stated concisely, this noted writer expressly rejects the idea of a minimum profit as a cost of production at the margin. By presenting the important concept of a price-determining no-profit margin for which all profits are measured as differentials, he laid the foundation for endless confusion among economists. This no-profit margin forms the pivot upon which his theory of distribution turns. From it upwards in constantly increasing sums, the entrepreneur's returns finally amount to tremendous proportions. Consequently, this startling innovation led to the logical conclusion that profits are practically of the nature of rent, and not a part of the cost of production. Precisely as land rent is represented as a price-determined increment above costs, so the entrepreneur's profits are described as surpluses measured from the price-determining margin of production.[1] And, therefore, such profits would, under full and free competition, not form a part of the price of commodities, and are not obtained by a deduction from wages It is plainly apparent that Walker's theory of profits closely resembles the classical concept of rent; and that he has extended it until it comprehends what he might have termed "efficiency profits."[2] Doubtless this theory

[1] Political Economy, pp. 239, 250.

[2] The Wage Question, pp. 230, 245.

affected somewhat the thought of other economists. Especially may we call attention to the views of President Andrews, who expressly rejected risk as a " reason of profits," and preferred what he has designated as a nomenclature,—"taking pure profits, or profits proper, as the remuneration of special original talent exercised in any industrial direction." Altho this gain, except in the case of monopoly, as he explains, "is brought about solely by better management than the poorest which still continues," he concedes Walker's argument, nevertheless, by saying that pure profits are governed by a law analogous to rent and that "neither enters into the price of products, nor lowers or any wise antagonizes wages." Finally, he differentiates gains of opportunity due simply to mere chance from what he calls profits of opportunity in trade " created by natural ability functioning in purely economic ways." That is, profits, as he has described them, are said to vary mainly with ability, partly with opportunity.[1] While Walker's method of exposition is full and elaborate and his ideas are clearly expressed, the smaller work left to us by President Andrews is very compact, the thought is somewhat condensed, and his meaning is not always easily deciphered. Yet it is none the less plain that these two authors were not far apart in their conception of a rent theory of profits.

That this surplus concept of profits has become firmly rooted in American economic theory may be drawn from various excerpts. In a recent book of a widely known author, " profits are a result of fluctuations in market value and would not exist in a state of normal equilibrium." And under the same conditions, " Gross profits must include interest and wages. But there would be no net profits, or surplus profits, or profits in

[1] E. B. Andrews, Institutes of Economics, pp. 186–189.

the real sense of the word." Certain it is that Professor Seligman does not give recognition in his text-book to those profits of efficiency which arise solely from reduced costs of production and do not disappear in a normal state of equilibrium.[1] Quite in agreement with this view of Seligman's is an excerpt from Seager's text: "As the above analysis suggests, profits which are not monopoly profits are soon overtaken and eliminated by competition. If improvements were to cease profits from this source would soon cease also." [2] In this group may also be included Professor J. B. Clark, whose statement in relation to profits is very similar: "In actual business, competition is often sharp enough to prevent men from getting more than interest on their capital and a fair return for the labor they spend in directing their business; and pure theory here assumes that competition is always and everywhere sharp enough to do this." [3] In a somewhat similar vein runs the conclusion of Professor Patten: "The profits of which mention has been made are those of falling prices due to improved processes. When improvements cease, these also cease." [4] A. S. Johnson has made a rough but useful distinction between the surplus concept of profits and profits in the business sense of the term: "A surplus remains in the hands of the enterpriser after all costs have been met. This surplus is known in economics as 'pure profits,' or more simply as 'profit.' We must be careful to distinguish profit in this sense of the term from the income known as profit in the language of business. In the latter sense profit often includes interest on the enterpriser's capital and wages for his

[1] Seligman, Principles of Economics, pp. 353, 354.

[2] Seager, Introduction to Economics, p. 182.

[3] Essentials of Economic Theory, p. 87, see also pp. 116–119; Political Science Quarterly, vol. ii, p. 610.

[4] Patten, Theory of Prosperity, pp. 126, 127.

labor. Profit in the economic sense of the term is not essential to the continued operation of an established enterprise. Profit in the business sense of the term is a necessary income, since no one would remain long in a business unless he obtained a return representing interest on his capital and wages for his labor." [1] Needless to say, the modern concept of a surplus profit maintained in the respective works of these various authors is a distinct and most important departure from that contained in the writings of the classical economists. There is no more interesting contribution to modern economic theory than this peculiar residual concept of profit. It is founded upon their conception of the present dynamic state of industry; and the obvious harvest of great unearned surpluses at the present day goes far in stressing their point of view. Clear it is, that their contribution to economics is a most timely one.

Nor is this evolution of a surplus profit theory confined to American writers. It has been pointed out by Gide that " Professor Walras employs a formula which at first seems astounding, when he declared that *the normal rate of profit is zero*. By this statement he means that upon the supposition of absolutely free competition the price which the entrepreneur pays for productive services (including his own) must necessarily be equal to the price for which he sells the finished product; profits must therefore be equal to zero." [2] Gide himself, in an early text, states postively that competition cannot eliminate profits " by lowering the price of articles to the level of the cost of production, for in that case the employer would make no gains, and would cease to produce." Between the cost of production and the selling price, Gide allows a margin which represents minimum

[1] Johnson, Introduction to Economics, p. 238.

[2] Gide, Principles of Political Economy, p. 632, note.

profits in the form of producer's interest, insurance against risk, and wages for the employer's labor. However, in a later edition, this writer presents a more comprehensive analysis of the entrepreneur's functions and, after including such returns in the costs of production, accepts, almost unqualifiedly the surplus concept of profits. Profits as a surplus are possible, it is said, only when the entrepreneur is in possession of some sort of monopoly — "that is to say, if the entrepreneur brings nothing on the market except what anybody else can offer, there is no profit." [1] Finally, in the native land of the classical economists has appeared the most marked violation of the orthodox doctrine; for English authors are not wholly unanimous in their devotion to the labor concept of profit. The rapid strides of the present industrial evolution, the sudden dynamic changes of society and the appearance of fabulous profits have had their influence on even the most conservative writers. We may select a particular example. By making the entrepreneur an idle speculator in town sites, Professor Nicholson has extended the sphere of profits until it clearly includes land rent: [2] "A speculator who has the good luck (for, in general, there is more luck than skill) to hit upon the site of a future town has simply to sit still." It need hardly be repeated that these various views make profits analogous to the now familiar unearned scarcity increment. This phase of profits is not emphasized in the writings of the English classical school; but modern problems have forced it upon us and have served to stress the importance of this modern tendency in economic thought.

It would be strange, indeed, if so many recent writers had erred in the explanation of profits. The fact is, each

[1] Gide, Principles of Political Economy, compare pp. 483–485, ed. 1896, with pp. 630–632, ed. 1904.

[2] Political Economy, vol. i, p. 400.

is correct from his point of view; there is an element of truth as he sees it. A diversified entrepreneur's income has permitted careful investigation from widely divergent angles and has allowed emphasis to be placed upon totally different phases of so-called profits. The crudest analysis reveals the existence of a scarcity surplus above costs, which truly enough will be gradually eliminated by competition; and which will, of course, tend to disappear in a static state of equilibrium. There is probably no disagreement among economists on this point, for most writers will probably concede that a pure value surplus is truly an unearned increment. The surplus theory of profits, however, in the hands of certain writers, has gradually assimilated all residual incomes of the entrepreneur, except mere wages of management — the whole thus represented is said to form a market surplus which does not enter into costs.

On the other hand, the surplus concept of profit runs counter to the views of a large group of economists, and it is evident to numerous writers that the entrepreneur's personal disutilities resemble very closely the laborer's sacrifices. The undertaker is, therefore, allowed as profits little more than a substantial and somewhat liberal wage of superintendence which is conceded to be a cost in production, tho it is not always clear that this cost is price determining. Thus, in Bullock's text, the entrepreneur is "an organizer and independent manager of business," whose returns are necessary and differential profits. All entrepreneurs receive necessary profits which "include interest on invested capital," besides "the remuneration for the efforts and trouble that employers incur in the management of productive enterprises." The last element — "wages of superintendence, resemble the wages of labor." [1] Likewise in

[1] Introduction to Economics, pp. 424, 526; 3d ed., pp. 460, 462.

speaking of profits Professor Fetter has said: "They are not subtracted from the gains of labor but are earned, in the same sense in which the wages of skilled labor are earned. So long as some men have better organizing ability than others, have better judgment, are better able to take the risks, there is reason to believe that profits will continue." [1] In like manner, Professor Ely adds "wages of management," at least, to the cost of production. Also, "minimum profits are necessary profits, the profits needed to induce the entrepreneur to continue his productive work. In many cases they can be measured roughly by the salary which the entrepreneur could get by working for some one else." [2] Particular functions and costs of the entrepreneur have been presented in a very concise form by Professor F. M. Taylor, who finally concludes that the sacrifice or disutility of assuming the responsibility of production necessarily forms a class by itself. According to this analysis, the entrepreneur's costs classify as follows: "(1) Actual outlay of the entrepreneur. (*a*) Money costs. (2) Expression in money of the entrepreneur's contributions, in so far as they are purchasable. (*b*) Real cost or sacrifice of assuming ultimate responsibility — this having its objective expression in money profits." [3] In comparison with the preceding views this is a liberal interpretation of the labor function. Certain it is, that these economists are on safe and conservative ground in affirming that costs include mere wages of routine management. But it is to be observed that this labor theory, in its broadest aspect, extends "wages of superintendence" to the entire legitimate profit income of the entrepreneur — a scope formerly given to profits probably by the English school and

[1] Principles of Economics, p. 291.

[2] Outlines of Economics, pp. 440, 441.

[3] Principles of Economics, p. 52.

carefully redefined and elaborated in several recent works.

Consequently, to the more radical followers of this labor theory, all profits, after being purged of grossly illegitimate gains, are merged into one share — a labor income. An eminent English economist, Professor Marshall, while devoting considerable space to a discussion of the subject of profits, speaks thus of the entrepreneur's income: "All his prospective gains enter into the profits which draw him towards the undertaking; all the investments of his capital and energies in making the appliances for future production, and in building up the immaterial capital of a business connection, have to show themselves to him as likely to be profitable, before he will enter on them; the whole of the profits which he expects from them enter into the reward, which he expects in the long run for his venture. . . . Thus the whole of the normal profits enter into true or long-period supply price."[1] And finally, in the recent text of Professor Taussig may be found, perhaps, the clearest and most concise statement of this point of view: "Whether the term 'business profits' should be thus limited is primarily a question of phraseology. The emphasis which this view puts on the relation between improvements and the business man's gains is just. The large and conspicuous gains are in fact associated almost invariably with advances in the arts, with boldness and sagacity in exploiting new enterprises and new methods. None the less, this mode of sharply separating business profits from wages seems artificial. Even the routine conduct of established industries calls for judgment and administrative capacity, and so for the exercise of the same faculties that are more conspicuous of rapid progress. To separate even roughly the earn-

[1] Principles of Economics, 5th ed., pp. 617, 618.

ings of a successful business man into two parts — one wages, the other 'profits' in the sense of gains from progress — would seem to be quite impracticable. Looking over the whole varied range of earnings among those engaged in the business career, it is simplest to regard them all as returns for labor — returns marked by many peculiarities, among which the most striking are the risks and uncertainties, the wide range, and high gains from able pioneering." [1] Thus have Marshall and Taussig placed themselves on record in remarkable opinions — notable for their thoro adherence to the original profit concept of the classical economists and for their rejection of the surplus concept of recent theory; for in the works of both of these men, efficiency profits, tho often described as great prizes which go to the skilled, daring and alert, are never separated entirely from the labor income.[2]

Doubtless every one of the preceding profit theories occupies, in a restricted sense, its appropriate niche in economic thought; but if careful consideration is given to the foregoing excerpts, it soon become obvious that the more radical representatives of both the surplus and labor theorists have assumed in their premises more than is scientifically sound, and in their conclusions more than has really been verified. In either case, the primary steps in their analysis are not conclusive; and, above all, both theories by overlaping include in their scope wholly unlike elements. To be more exact, large returns arise from the profits of efficiency which are due solely to new ideas and reduced costs in the process of production. These incomes are the rewards of dynamic efficiency and risk-taking rather than of labor; and,

[1] Principles of Economics, vol. ii, p. 185.

[2] This tendency to view profits either as largely temporary and unearned or as mostly permanent and earned may also be seen in the discussion of risk profits — a topic to be treated in a separate article.

moreover, they are not eliminated by competition, even in the static state. That is, exercising absolute control over the destiny of capital, inventing new ideas, and taking risks are not considered here as primarily a part of the labor function. Plainly stated, these writers have failed to analyze properly the various incomes of the modern enterpriser; and their works do not show due appreciation of conditions as they actually exist. They see at one time only one side of the tremendous, but most alluring, profit-making function. In fine, neither of these theories differentiates the returns of intra-marginal producers; and strange enough, no attempt is made to separate the profits of efficiency from the fluctuating market surplus.

In marked contrast to both the surplus and the labor theories, a division of the entrepreneur's residual surplus into both earned and unearned increments, permits a much desired scientific classification of profits. Let us say, first, that the entrepreneur receives an earned income because of his peculiar dynamic efficiency in controlling the destiny of capital, in incorporating ideas into industry and in assuming all risks in connection with them. This function serves in particular instances to reduce outlays and is borne solely by the entrepreneur. We would first separate here efficiency profits, under freely competitive conditions, by making them equivalent to the net output measured by the reduction of costs to the entrepreneur. Or, if one prefers to use another method, the net output may be valued in the costs of the same quality of product on the extensive margin. In the second place, all unearned profits may, as a rule, be distinguished as various forms of the scarcity increment, which arise from an increased intensity of demand forces. Whether such profits are due to natural market fluctuations, to restraint of trade, or to

exploitation of the individual, they are usually determined causally by the comparative scarcity of the desired product; and may, therefore, be measured exactly by the difference between the cost of production and the market price. The first class of profits, however, are earned incomes; that is, returns for economic effort, while those designated here as scarcity gains are surpluses above costs and wholly the result of the fluctuating intensity of demand forces. Even tho scarcity profits may be induced by a fluctuating supply, they are not the result of economic sacrifice. This plan of classification is most pertinent to a differentiation of the intra-marginal profits of the more efficient producers; but obviously it will be found by careful comparison to run counter to both the previous surplus and labor theories of present-day writers.

In presenting a distinct theory of efficiency profits, we shall rely partly on the fact that this dynamic function of the entrepreneur is fully recognized in American law, and that his peculiar ability, or inventive faculty, is readily distinguished from the mechanical skill of the mere laborer, manager, or superintendent. The sacred right of every man to possess exclusive ownership in his own secret or discovery is a sort of inalienable right which has come down to us from ancient times, and more recently been hedged about with legal barriers. This right extends even to little things. Thus a workman, while in the employ of his master, changed the direction of a pipe entering an iron mold so that the dross in the molten metal was thrown toward the center. The employer claimed the invention. Yet in the application of the legal principle to this simple case, the court raised the inventive powers of the workman above the field of routine service, and made this act of the laborer wholly independent of the claims of his employer. This

exclusive right of the entrepreneur extends, of course, to inventions, discoveries and trade secrets. But the strictly defined legal sphere of invention includes, in the opinions of the courts, only the highest order of dynamic service performed by the entrepreneur. The design of the patent law is to reward only those who have made some substantial advance in the useful arts.[1] The subject of a patent must, therefore, embody something more than what any skilled workman, if called upon, could produce; something more than what may seem to involve the exercise of extraordinary mental powers in the everyday work of laboratory routine.[2]

In this connection, however, if a much desired result is secured through a patented device, which has never before been attained, want of invention cannot be maintained on the ground that it is merely a combination of known elements [3] or that it is so simple in construction that any one can make it.[4] Certain it is, tho the sphere of invention is strictly limited and narrowed by analysis and definition, the significant fact remains that the slightest *invention* in business and the faculty which creates it, are legally recognized as in no way connected with the routine conduct of an enterprise.

[1] Atlantic Works v. Brady, 107 U. S. 199, 200; Tiemann v. Kraatz, 85 Fed. Rep. 349.

[2] Badische Anilin and Soda Fabrik v. Kalle, 94 Fed. R. 173; Perkins Electric Switch Manufacturing Co. v. Gibbs Electric Manufacturing Co., 87 Fed R. 923, 924; Vinton v. Hamilton, 104 U. S. 491. Again, it is not enough that an improvement is new and possesses great economic advantages for it to rank as an invention, it must be the product of the inventive powers. (Magin v. Karle, 150 U. S. 391; Burt v. Evort, 133 U. S. 349; Hild v. Wooster, 132 U. S. 700; Watson v. Railway Co., 132 U. S. 161; Munson v. New York City, 124 U. S. 610; Morris v. McMillan, 112 U. S. 247.) Thus it is not an invention to duplicate the parts of a machine unless the alteration in it causes a new mode of operation. (Dunbar v. Meyers, 94 U. S. 197; Slawson v. Grand Street R. R. Co., 107 U. S. 653; Millner v. Voss, 4 Hughes, 262.) Neither is the mere act of assembling processes, machines, or enterprises to be classed as invention. (Hailes v. Van Wormer, 20 Wallace, 353; Reckendorfer v. Faber, 92 U. S. 357; Pickering v. McCullough, 104 U. S. 318.)

[3] Loom Co. v. Higgins, 105 U. S. 591.

[4] Dubois v. Kirk, 158 U. S. 63; Potts v. Creager, 155 U. S. 608, 609; Krementz v. Cottle Co., 148 U. S. 561.

Consequently, it stands out as a part of that dynamic function which the entrepreneur alone exercises.

But this legal right of the entrepreneur extends also to trade secrets; and in this relation he possesses several legal methods of preserving the results of his peculiar dynamic efficiency. Tho he may not secure letters patent for his device, he may, perhaps, preserve it for a longer time through secrecy. In the first place, this function of the entrepreneur is protected from the public and from his own employees. It is a well known rule of law that where an employee has entered the service of another and has had imparted to him the secrets of a business, he is bound without an expressed contract to preserve them as sacredly as his own.[1] This right of the entrepreneur extends to a secret code used by him in entering prices in a trade catalogue; one who obtained the key to the code so used, was enjoined by the court from disclosing the information to others.[2] Similarly, a counting house clerk was not allowed to make known what he had learned in performing his duties.[3] In like manner, an engine maker's clerk, who had made a table of dimensions of his employer's engines, was prevented from using or disclosing the data so obtained.[4] In a like instance an injunction was granted to prevent the publication of etchings made simply for amusement.[5] So in a bankruptcy case, one who owned a secret process in the business was allowed to remove all machinery necessary to prevent its disclosure to others. A slight change in the method of manufacture may, of course, be of great advantage to the entrepreneur; but if the general process is well known, he may be unable,

1 Simmons Med. Co. v. Simmons, 81 Fed. Rep. 163.
2 Simmons Hardware Co. v. Waibel, 1 So. Dak. 488.
3 Tipping v. Clarke, 2 Hare, 393.
4 Merryweather v. Moore, 61 L. I. 506.
5 Prince Albert v. Strange, 18 L. J. 120.

except through a contract with his employees, to protect his trade secret. For example, in one instance, a method of collecting insurance was disclosed to an agent without binding him to secrecy, and it therefore became common knowledge.[1] Again, of several manufacturers making a well known soap, one who succeeded by a slightly changed process in making a better article than that produced by the others, was unable to maintain in court that he possessed a secret process.[2] In another instance it was impossible to secure an injunction to protect a secret process for making pills, for the court decided that it would be unable to discover whether the method had been infringed upon unless it were disclosed in court.[3] From these illustrations it is plain that wherever possible the peculiar dynamic efficiency of the entrepreneur is protected by law from his employees and the public. In fine, against those who have surreptitiously gained knowledge of his trade secrets, the entrepreneur's right of relief in equity has always been recognized.[4]

It is also a significant fact that the law distinguishes between mere managerial ability and the peculiar powers of the inventor. That is, the inventive faculties are emphasized and raised above even the skill of a general manager. In Hapgood *v.* Hewitt a general superintendent of a manufacturing department had also agreed to devote his time and services " to devising and getting up ploughs for the corporation " by which he was employed. The finding of the court upon the evidence is most pertinent. It was declared " (1) that

[1] Bristol v. Equitable Life Assurance Society, 132 N. Y. 264.

[2] Bell and Bogart Soap Co. v. Petrola Manufacturing Co., 54 N. Y. Supp. 663.

[3] Newberry v. James, 2 Meriv. 451; see Williams v. Williams, 3 Meriv. 158.

[4] Fralich v. Despar, 165 Pa. St. 24; Stewart v. Hook, 118 Ga. 445; Salomon v. Hertz, 40 N. J. Eq. 400; Thum Co. v. Tloczynski, 114 Mich. 149; Peabody v. Norfolk, 98 Mass. 452.

Hewitt was not expressly required, by his contract, to exercise his inventive faculties for the benefit of his employer, and there was nothing in the bill from which it could be fairly inferred that he was required or expected to do so; (2) that, whatever right the employer had to the invention by the terms of Hewitt's contract of employment, was a naked license to make and sell the patented improvement as a part of its business, which right, if it existed, was a mere personal one, and not transferable, and was extinguished with the dissolution of the corporation." [1] In Illinois the mere fact that a superintendent received wages, materials, and assistance from his employer while making his models did not give the latter a right in the invention itself. The peculiar function of the inventor or entrepreneur, as we would describe him, has been carefully distinguished by a court of that state: "An invention is the product of the mind, and the making of models and performing of the experiments are only mechanical operations and mere labor performed for appellant (the inventor) under his direction, for which he would be liable to be charged, or the time lost deducted from his wages or time. As between employer and employee, the right to the invention belongs to the one who conceives the idea, and follows it out to practical invention." [2] The contents of these two decisions have an important bearing on the labor theory of profits, for they go to the heart of this complex question of the entrepreneur's function and point out what is all-important. They rightly distinguish the inventive powers of the entrepreneur, lend emphasis to his peculiar dynamic efficiency, and separate in a thoro manner his sphere of activity from that of the manager.

[1] Hapgood v. Hewitt, 119 U. S. 233; see Peabody v. Norfolk, 98 Mass. 460; Dalzell v. Deuber Manufacturing Co., 149 U. S. 320.

[2] Dice v. Joliet Manufacturing Co., 11 Ill. App. 114, citing Agawan Co. v. Jordan, 7 Wall. 603; Collar Co. v. Van Dusen, 23 Wall. 563.

We have, therefore, concluded that to confuse the superior function of one who furnishes an invention, discovery, or trade secret with the services of superintendence and management is to prevent proper analysis, and to neglect the earned profits of efficiency. Nay, more, it serves to defeat the full purpose of the labor theory of profits; for what is so obviously patent of the invention function is also true of all dynamic services of the entrepreneur. There is room for a labor theory of profit; but in its present form it includes too much, and, therefore, defeats a proper analysis of the residual income. That is to say, by merging this peculiar dynamic efficiency into the labor concept of profits, we have failed to recognize the importance of a service which really forms a proper foundation for an *efficiency theory of profits*. Hence by means of the foregoing excerpts we have sufficiently emphasized the inventive powers of the undertaker as a basis of efficiency profits. At the same time, it has been our intention to separate them from the activities of mere labor, and to show that the labor theory of profit is not in harmony with the present conditions of industry.

It has, however, been noted that the entrepreneur's dynamic activities contain something more than the creation of inventions and trade secrets. Stated concisely, there still remains the important elements of judgment, control, and risk-taking. No group of laborers, however adaptable, skilled and aggressive can, as such, perform these tasks of the entrepreneur. Upon the element of judgment must depend the acceptance or rejection of all new ideas and changes leading to the successful expansion or contraction of industry. This is obvious from the very fact that whether new ideas — as they take the form of abstract capital — are the product of his own mind or are furnished to him by

others, he alone embodies them in the productive process; that is to say, takes the risk and responsibility of using them. Judgment is simply an indispensable part of the entrepreneur function — the very leaven to industry; and extends to every material unit and active service utilized in a dynamic enterprise. It accepts the methods of control to be used, the forms of coördination to be established, and the proper risks to be taken. It unlocks the door to success in every venture whether it be only the small corner stand of the popcorn vender or the vast empire of the railroad magnate. In relation to the entrepreneur's services it forms the cement to industry. It binds the functions of control, coördination, and risk-taking into a concrete working unit; and these powers distinguish his dynamic function from that of the laborer and the capitalist.

At this point let us compare briefly the profits of efficiency with the scarcity surplus. The efficiency profits of the intra-marginal producer no more resemble the scarcity or speculative profits above the competitive plane than do real wages and natural interest. Profits of efficiency arise from successfully reducing real costs of production. We may note, for example, that every new capitalist, laborer, or entrepreneur who supplants a less capable one, increases the supply of productive services, the amount of efficiency profits, and decreases at the same time scarcity gains. By creating newer and more efficient enterprises, the entrepreneur reduces, then, to some extent the previous scarcity of capital and commodities. A sudden increase in demand may, of course, cause the appearance of speculative profits, but to say that increased production alone means a greater scarcity of economic goods is asserting an absurdity. More economic processes and more commodities are produced through the increased efforts of the more

efficient entrepreneur; and, moreover, he is entitled to that part of the increased product which compensates him for his added outlay and his risk disutility — a true differential. To compare this increment to speculative profit or to rent is confounding the real product of efficiency with a scarcity surplus.

The surplus theorists, it is true, rightly emphasize the existence of a speculative profit above the cost of production, which tends to disappear as industry approaches a static state. Their service in this respect has drawn our attention to this form of the unearned surplus and its relation to production. Moreover, if accountants can determine the cost of an article, they are certainly able to ascertain the amount of the unearned increment, which is simply the difference between the costs of production, including efficiency profits, and the market price. But when economists make this surplus identical with the efficiency returns of the entrepreneur, certain fundamental differences between the two forms of profit are overlooked. The two incomes hold entirely different relations to price, and, as has been noted, arise from wholly different causes. Speculative profit is *determined* or measured by the scarcity price; efficiency profit, on the other hand, aids in *determining* or fixing the normal price. The latter return is a cost of dynamic changes in production, is governed by the technical laws of industry, and corresponds to a given positive effort on the part of the entrepreneur in the technical process of production. The former is solely a phenomenon of value, is governed by the law of demand, and corresponds to a given human desire in the process of consumption. Efficiency profit tends to increase generally by virtue of increasing individual efforts to reduce costs below the competitive plane, and the rate varies between producers; speculative profit

tends to increase, as a whole, by reason of increasing competitive desires and demands of consumers, and the rate of increase, where price rises uniformly, is the same for all producers. One is due to the increased services and efficiency of the producing agent, the other to the latter's scarcity and the limitation of its producing power. It is, of course, plain that this surplus theory will not explain adequately the origin of the entrepreneur's various incomes; and it is none the less obvious that even in a static society, an efficiency or differential profit will continue to exist until all human powers have become paralyzed and the forces of nature have ceased to work.

We may return now to the more conservative view presented by the labor theorists. The labor theorists, from their side of the controversy, have overlooked three important things which the actual conditions of industry make it necessary that the economists should observe. In the very beginning, they do not differentiate the peculiar dynamic efficiency of the entrepreneur from his labor function. To this function we have credited largely changes in production and the creation of efficiency profits. But as the economic world is now constituted, the wide range of this dynamic efficiency covers a multitude of questionable acts, which, under the guise of able pioneering, are commended by both legalists and economists as just endeavors to obtain the more lucrative gains of progress. However, confined to its proper sphere, this dynamic function, as we would restrict it, consists in incorporating ideas or abstract theories into the productive process and taking the necessary risks on them. On the side of concrete production, as distinguished from the field of consumption, this function serves a highly useful purpose; it is, in fact, the highest order of effort known in industry. But

in the fields of exchange and distribution this service, through the coercion of demand and consumers, may assume the form of legal robbery. By way of illustration, in the correlation of supply and demand, the entrepreneur's efforts to secure a permanent market, to direct and control the flow of trade, and to outdistance his rivals, have assumed such elaborate schemes that his peculiar dynamic efficiency must certainly be recognized as overshadowing the nominal function of labor. By absorbing into the labor concept of profit the most important, and at times the most injurious acts known to the economic world, these theorists have avoided a most needed analysis. In fact, in the zealous endeavor to include all profit incomes in the labor concept, the latter theory has been so extended in scope that it now embraces the entire skein of tangled profit notions from the meager hard-earned wages of labor, on the one extreme, to the abundant harvest of unearned good will surpluses on the other. Obviously, the doctrine that the whole varied range of incomes of a successful business man are simply the returns of labor, is fully as misleading to jurists, statesmen, and business men as its exact antithesis — the surplus profit theory — *is unscientific and untrue.*

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